

### **SUMMARY OF CLAIMS**

Claims 4, 6-26 and 35-49 are rejected. Upon entry of the present amendment, claims 5, 10, 11, 19 and 27-34 are cancelled. Claims 50-59 are new. Claims 4, 6-9, 12-18, 20-26, 35-59 are pending.

### **REMARKS**

#### **Examiner Interview**

Applicants wish to thank Examiner Lovel for extending the courtesy of an Examiner Interview to Applicants' representative Paul Borchardt on August 26, 2009. Applicants appreciate the opportunity the Interview provided to discuss the §103 rejections and possible claim amendments to overcome the rejection.

#### **No New Matter**

No new matter is added by way of amendment as support is found throughout the specification. More particularly, support is found as follows:

#### **Claims 4, 12, and 37**

Support for formatting or structuring facts for storage in the knowledge representation or database according to an ontology comprising classes and individuals is found in at least paragraphs 0008, 0012, 0027, 0075, 0108 and 0109. Similarly, support is also found there for storage of the structured facts.

#### **Claims 50 and 56**

Support for the facts comprising an object and process relationship is found in at least paragraphs 0070 and 0071.

#### **Claim 51**

Support for the relationship between the object and process taking the form of the process being an action that acts upon the object is found in at least paragraphs 0070 and 0071.

Claim 52

Support for the object being a gene, protein, cell, or organism is found in at least paragraphs 0070 and 0071.

Claim 53

Support for the facts comprising a first and second physical object that are related by a process is found in at least paragraphs 0070 and 0071.

Claim 54

Support for the information being extracted from one or more sentences, a portion of a sentence, diagram, figure or table is found in at least paragraphs 0070 and 0073.

Claim 55

Support for extracting the information using a template is found in at least paragraphs 0070 and 0073.

Claims 56-59

Support for an ontology comprising slots, relations or facets is found in at least paragraphs 0027, 0113 and 0118.

**Claim Objections**

Claims 11 and 12 are objected to because of informalities. Applicants appreciate Examiner's thoroughness and have amended claim 12 as suggested. Further, claim 11 is now cancelled. Hence, Applicants respectfully request the withdrawal of the objections.

**Claim Rejections – 35 USC §103**

During patent examination the PTO bears the initial burden of supporting a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, it is necessary for the references to teach or suggest all claim limitations.

Applicants believe this burden has not met under §103 for at least the following reasons:

**A. Claims 4, 6, 7, 9, 11, 12-27, 35, 36, 48 and 49**

Claims 4, 6, 7, 9, 11, 12-27, 35, 36, 48 and 49 are rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over US Patent No. 6,263,335 to Paik et al (hereafter Paik) in view of the article "Sentence Analysis by Case-Based Reasoning" to Chakkour et al (hereafter Chakkour) in view of the article "Object Role Modeling (ORM/NIAM)" to Halpin (hereafter Halpin). Applicants traverse the rejection.

In regards to claim 4, Applicants respectfully contend that amended claim recites at least 3 claim limitations that are not taught or suggested by Paik. They are addressed individually as follows:

1. *formatting the facts for storage in the knowledge representation according to an ontology comprising classes and individuals*

Paik does not teach or suggest the formatting of facts for storage according to an ontology comprising classes and individuals.

2. *verifying that the facts extracted from the selected articles are placed in the correct format for storage in the knowledge representation according to the ontology*

Examiner admits that Paik does not explicitly disclose the verification of extracted facts for placement in the correct format for storage. Further, Applicants assert that the current amendment is also not disclosed by Paik for it recites that correct format for storage follows an ontology.

3. *storing the formatted facts in the knowledge representation*

Storage of the formatted facts implicitly requires that the facts be formatted according to the above described ontology. Since Paik does not format the facts according to the above ontology, it therefore cannot disclose the storage of the formatted facts in the knowledge representation system.

Applicants contend that the at least three deficits of Paik are not remedied by the disclosures of Chakkour or Halpin, singularly or in combination.

With respect to claim limitation 1, neither Chakkour nor Halpin disclose the formatting of facts for storage in the knowledge representation according to an ontology.

With respect to claim limitation 2, since neither Chakkour nor Halpin disclose the formatting of facts for storage in the knowledge representation according to an ontology, they cannot verify the correctness of the formatting.

With respect to claim limitation 3, similarly, since neither Chakkour nor Halpin format the facts for storage according to an ontology or verify the correctness of the formatting, they cannot store the (correctly) formatted (and verified) facts in the knowledge representation.

Applicants contend that since Paik does not disclose at least three claim limitations and these deficits are not remedied by Chakkour or Halpin, a *prima facie* case of obviousness cannot be made. Therefore, Applicants respectfully request the withdrawal of the rejection of claim 4 and its dependent claims under 35 U.S.C. §103(a).

In regards to claim 12, Applicants respectfully contend that amended claim recites at least 3 claim limitations that are not taught or suggested by Paik. They are addressed individually as follows:

1. *an information extractor that extracts a finding from an article's natural language and translates this finding into a structured finding for storage according to an ontology comprising classes and individuals*

Paik does not teach or suggest the use of an information extractor that translates a finding into a structured finding for storage according to an ontology comprising classes and individuals.

2. *a content reviewer in communication with the information extractor for verifying whether the structured finding has been properly formatted for storage in the second database*

It is implicit that the verification of proper formatting requires the structured finding be formatted for storage according to an ontology, something that Paik does not disclose.

3. *a computer system in communication with the second database for storing the structured finding in the second database according to the ontology*

Paik does not teach or suggest the storing of a finding structured according to an ontology in a database and therefore, Paik cannot disclose a computer system in communication with this database.

Applicants contend that the at least three deficits of Paik are not remedied by the disclosures of Chakkour or Halpin.

With respect to claim limitation 1, neither Chakkour nor Halpin disclose an information extractor that extracts a finding and translates this finding into a structured finding for storage according to an ontology.

With respect to claim limitation 2, since neither Chakkour nor Halpin disclose the formatting of findings for storage according to an ontology, they cannot disclose the verification of the proper formatting for storage.

With respect to claim limitation 3, similarly, since neither Chakkour nor Halpin disclose the formatting of findings for storage according to an ontology, they cannot disclose a computer system in communication with a database the stores the formatted findings.

Applicants contend that since Paik does not disclose at least three claim limitations and these deficits are not remedied by Chakkour or Halpin, a *prima facie* case of obviousness cannot be made. Therefore, Applicants respectfully request the withdrawal of the rejection of claim 12 and its dependent claims under 35 U.S.C. §103(a).

#### **B. Claim 8**

Claim 8 is rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over US Patent No. 6,263,335 to Paik et al. in view of the article "Sentence Analysis by Case-Based Reasoning" to Chakkour et al. (hereafter Chakkour) in view of the article "Object Role Modeling (ORM/NIAM)" to Halpin as applied to claim 7 above and further in view of US PGPub 2002/0165737 to Mahran (hereafter Mahran). Applicants traverse the rejection.

Applicants contend that as discussed above for claim 4, Paik, Chakkour, or Halpin do not, singularly or in combination, disclose at least three claim limitations in independent claim 4 from which claims 7 and 8 depend. Applicants assert that Mahran also does not teach at least these three claim limitation. Consequently, a *prima facie* case of obviousness cannot be made. Therefore, Applicants respectfully request the withdrawal of the objection under 35 U.S.C. §103(a).

**C. Claims 37-47**

Claims 37-47 are rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over US Patent No. 6,722,160 to Paik et al (hereafter Paik) in view of the article “Object Role Modeling (ORM/NIAM)” to Halpin (hereafter Halpin). Applicants traverse the rejection.

Applicants respectfully contend that Paik does not disclose at least five limitations. They are addressed individually as follows:

1. *assign an article to an information extractor for extraction of information from an article to be structured for storage according to an ontology comprising classes and individuals*

Paik does not teach or suggest the extraction of information from an article to be structured according to an ontology comprising classes and individuals.

2. *receive information extracted by information extractor*

It is implicit that the extracted information received from the information extractor is structured for storage according to an ontology comprising classes and individuals. Since Paik does not teach or suggest the structuring for storage of extracted information according to an ontology, Paik cannot teach the receipt of extracted information according to the ontology.

3. *assign the article and extracted information to a content reviewer*

It is implicit that the extracted information assigned to a content reviewer is structured for storage according to an ontology comprising classes and individuals. Since Paik does not teach or suggest the structuring for storage of extracted information according to an ontology, Paik cannot teach the assignment of extracted information structured for storage according to the ontology to a content reviewer.

4. *receive corrections to extracted information from the content reviewer*

It is implicit that the extracted information received from a content reviewer is structured for storage according to an ontology comprising classes and individuals. Since Paik does not teach or suggest the structuring for storage of extracted information according to an ontology, Paik cannot teach the receipt of corrected information from a content reviewer that was originally structured for storage according to the ontology.

5. *an information store for storing the extracted information*

It is implicit that the extracted information stored in the information store is structured according to an ontology. Since Paik does not teach or suggest the structuring for storage of extracted information according to an ontology, Paik cannot teach the storing of information extracted according to the ontology.

Applicants assert that the at least five deficits of Paik are not remedied by Halpin, for Halpin fails to disclose the structuring of extracted information for storage according to an ontology comprising classes and individuals. Consequently, Halpin also cannot disclose at least the four remaining limitations that implicitly rely on the assignment, receipt or storage of extracted information that was structured for storage according to an ontology comprising classes and individuals.

Applicants contend that since Paik does not disclose at least five claim limitations and these deficits are not remedied by Halpin, a *prima facie* case of obviousness cannot be made. Therefore, withdrawal of the rejection of claims 37-47 under 35 U.S.C. §103(a) is respectfully requested.

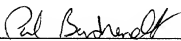
**CONCLUSION**

In light of the remarks set forth above, Applicants believe that they are entitled to a letters patent. Applicants respectfully solicit the Examiner to expedite the prosecution of this patent application to issuance. Should the Examiner have any question, the Examiner is encouraged to telephone the undersigned.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 23-2415 (Attorney Docket No. 27763-703.301) for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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